

of at least one member selected from the group consisting of amines, alcohols, thiols, ammonia, sulfur dioxide, sulfur dioxide and oxygen, sulfur trioxide, hydrogen sulfide, carbon dioxide, carbon monoxide, carbon sulfide, carbonyl sulfide, hydrogen peroxide, and water.

13. (Amended) The method of claim 21 wherein after the gas is applied, the substrate is

rinsed with deionized water.

14. (Amended) The method of claim 21 wherein the gas includes at least one member consisting of ammonia, hydrogen and sulfur dioxide.

Please add the following new claims:

20. (New) A method of enabling the removal of fluorine containing residue from a semiconductor substrate, comprising the steps of:

applying a gas and/or vapor to which the residue is reactive to the semiconductor substrate while the temperature of the substrate is at an elevated level with respect to ambient temperature; and

exposing the substrate to ultraviolet radiation simultaneous with said gas and/or vapor applying step wherein said applying and exposing steps are continued for a period of time at least sufficient to render the residue to be soluble in deionized water.

21. (New) The method of claim 20 wherein the ultraviolet radiation is provided by an ultraviolet lamp.

22. (New) A method of processing a semiconductor wafer comprising the steps of:

coating the wafer with a photoresist,

imaging a pattern on the photoresist with ultraviolet radiation,

developing the photoresist,

hardbaking or stabilizing the photoresist,

forming integrated circuit components on the wafer, and

removing the photoresist from the wafer, by

(a) performing an ashing process on the photoresist which removes the photoresist except for a residue, and

(b) removing the residue by applying a gas and/or vapor selected from the group of amines, alcohols, thiols, ammonia, sulfur dioxide, sulfur dioxide and oxygen, sulfur trioxide, hydrogen sulfide, carbon dioxide, carbon monoxide, carbon disulfide, carbonyl sulfide, hydrogen peroxide, and water, to the residue while the temperature of the substrate is at an elevated level with respect to ambient temperature and exposing the residue to ultraviolet radiation simultaneous with said gas and/or vapor applying step, wherein said applying and exposing steps are continued for a time period which is at least sufficient to render the residue to be soluble in deionized

water.

23. (New) The method of claim 14 wherein the ultraviolet radiation is provided with an

~~Q301~~

~~ultraviolet lamp~~